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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/606,807	06/28/2000	Kai-Fu Lee	MS1-564US	6459
22801	7590	07/27/2005	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			HAN, QI	
			ART UNIT	PAPER NUMBER
			2654	

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/606,807	LEE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Qi Han	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04/28/2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-25,31-46,49 and 50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-25,31-46,49 and 50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### *Response to Amendments*

2. This communication is responsive to the applicant's amendment dated 04/28/2005. Applicant amended claims 20, 31, 33, 44 and 50, and canceled claims 1-8, 26-30, 47-48 (see pages 1-12).

#### *Response to Arguments*

3. The examiner withdraws the claim rejection (regarding claims 1-8, 26-30, 47-48) under 35 USC 102 and 103, because the applicant canceled the claims.
4. Applicant's arguments regarding rejection for claims 9-13, filed 04/28/2005, have been fully considered but they are not persuasive.

In response to applicant's arguments regarding claims 9-13, under claim rejection 35 USC 112 1<sup>st</sup>, that the amended limitation "first and second languages **that are represented without using different text forms** (means using same text form)" "is supported by the application" (see amendment: pages 12-13), the examiner respectfully disagrees with the applicant and has a different view of the argued issue. Firstly, it is noted, as stated in the rejection, the amended limitation introduces a new subject matter, because the original specification did not specifically describe the claimed limitation. Secondly, even though

Art Unit: 2654

applicant pointed out the related disclosure (see amendment: pages 12-13), it is noted that the applicant's recited disclosure (see the argument: pages 12-13) does not include the same words, equivalent meaning, or same scope of the claimed limitation at all.

In response to applicant's arguments regarding claim 9-13, under claim rejection 35 USC 103(a), that "Chen (prior art) does not disclose, teach or suggest" the claimed limitation (page 14, paragraph 4), "the Office has misinterpreted the "different text forms" feature as recited in claim 9" that "does not recite "modes"" (page 14, paragraph 5), and "Chen describes mixed text entry... marked with diacritics...therefore, Chen does not disclose, teach or suggest the above referenced feature" (page 15, paragraph 1), the examiner respectfully disagrees with the applicant and has a different view of the prior art teaching and the claim interpretation. It is noted that, since the amended limitation "at list first and second languages **that are represented without using different text forms**" (means using same text form) introduces a new subject matter (as stated above), as best understood in view of the rejection under 35 USC 112 1<sup>st</sup> (see the office action), the examiner's interpretation for the claimed limitation in light of the specification is proper.

For above reason, the rejection of the corresponding claims is sustained.

5. Applicant's arguments with respect to the rejection for claims 14-25, 31-46 and 49-50, filed 04/28/2005, have been considered but are moot in view of the new ground(s) of rejection.

*Claim Rejections - 35 USC § 112*

6. Claims 9-13, 31-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 9, the new amended limitation “receiving an input string containing first and second languages **that are represented without using different text forms**” is not specifically described in the specification, which introduces a new subject matter.

Regarding claims 10-13, they are dependent claims and inherit all limitations of their parent claim(s).

Regarding claim 31, the claim recites “the typing model being trained in a language” while “the language model being trained in another language”, which lacks sufficient support in the specification. The closest disclosure teaches that “the language input system employs a statistical language model” and “Both models (English and Chinese typing models) ... are guided by the language model (e.g., a Chinese language model) to output the most likely sequence of characters” (see specification: page 10, line 19 to page 11, line 8), and “a language model P(H) for Chinese” (see specification: page 28, lines 20-28), wherein Chinese refers to said a language and English refers to said another language, which suggests only one language model for Chinese (a language), and nowhere teaches “the typing model being trained in a language” while “the language model being trained in another language”. Therefore, the claim and specification does not contain a written description of the invention, and of the manner and

Art Unit: 2654

process of making and using it, in such full, clear, concise, and exact terms as to enable one skilled in the art to make and/or use the claimed invention, without undue effort.

Regarding claim 32 (depending on claim 31), it inherits all limitations of its parent claim(s).

7. Claims 9-25, 31-46 and 49-50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 9, the limitation of “determining at least **candidate...that may be used to replace** the input string based on a probability of **how likely the first candidate string was incorrectly entered...**” is unclear and contradictory, because the “probability of how likely the first candidate string was incorrectly entered” means error probability, which indicates the candidate with higher error probability to be pruned, not to be used to replace the input string. Therefore, the limitation is indefinite. As best understand, the limitation will be interpreted as “determining at least one candidate... was **correctly** entered...” hereinafter.

Regarding Claims 10-13, the rejection is based on the same reason described in their parent claim above, because the dependent claims inherit all the limitations of their parent(s).

Regarding Claims 14, 22, 23, 42, 49, 50 the rejection is based on the same reason described for claim 9, because the claims recite the same or similar limitation(s) as claim 9.

Regarding Claims 15-21, 24-25, 43-46, the rejection is based on the same reason described for their parent claim above, because the dependent claims inherit all the limitations of their parent(s).

Regarding Claim 31, it is unclear what functional connection and relationship would be between the claimed limitations of “the typing model being trained in a language” and “the language model being trained in another language”. As stated above, the limitations also lack support in the specification, so that it will be treated as being indefinite.

Regarding claim 32 (depending on claim 31), it inherits all limitations of its parent claim(s). Further, the limitations of “the first language” and “the second language” lack antecedent basis in its parent claim.

Regarding Claim 33, according to the context, the claimed limitation appears to suggest that “the candidate” is for using, not for pruning, therefore, the rejection is based on the same reason described for claim 9.

Regarding Claims 34-41, the rejection is based on the same reason described in their parent claim above, because the dependent claims inherit all the limitations of their parent(s).

### ***Claim Rejections - 35 USC § 103***

8. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 6,073,146).

Regarding **claim 9**, as best understood in view of rejection under 35 USC 112 1<sup>st</sup> and 2<sup>nd</sup> (see above), Chen discloses a system and method for processing Chinese language text (title), comprising:

“receiving an input string containing at least first and second languages that are represented without using different text forms (interpreted as without switching entry modes)”, (column 4, lines 23-61, ‘allows a mixed Chinese and non Chinese (e.g., English) text to be

Art Unit: 2654

processed', 'entering phonetic Chinese (Pinyin and BPMF) (herein inherently including string) into computer system'; column 5, lines 11-13, 'mix text, both Chinese and non Chinese words, can be processed by delimiting the non Chinese words with a special character, e.g. a space', wherein the mixed text (string) containing Chinese Pinyin text and English text is interpreted as "without using different text form"; column 9, lines 55-67, 'the ASCII coding for Pinyin or mixed input (without using different text forms)'; and

"determining at least one candidate string in the first language that may be used to replace the input string", (column 4, lines 28-61, 'converting the phonetic input into the Hanzi form (first language)'; Fig. 4 and column 12, lines 35-66, 'an erroneous spelling is detected 408', 'the most probable syllable is displayed 409'; column 18, lines 55-60, 'the remaining candidates are represented to the user... for selection (replace)' and 'manual correction by user').

But, Chen does not expressly disclose that the step of determining candidate string stated above is "based on a **probability** of how likely the first candidate string was incorrectly entered as the input string in the first language". However, the feature of using probability for determining candidates is well known in the art as evidenced by Chen himself who further discloses using statistical model for the notional words (column 5, line 8), which is inherently based on probability calculations, and well known method using probability for Hanzi (column 2, lines 13-17). Further, Chen teaches that 'If an erroneous spelling is detected 408 ..., the most probable (corresponding to a lowest probability of incorrectly entering the input string) syllable is displayed 409... presenting a menu of probable choices (at least one first candidate string), i.e. best match 1023, selected (replaced) from the Chinese syllable list 700' (Fig. 4 and column 12, lines 35-66). Therefore, it would have been obvious to one of ordinary skill in the art at the time



Art Unit: 2654

the invention was made to modify Chen by specifically providing the candidates by using statistic model and probability, for the purpose of further removing ambiguity (Chen: column 5, lines 7-8) and selecting the most probable candidate for best matches (Chen: column 12, lines 64-66).

Regarding **claim 10** (depending on claim 9), Chen further discloses that selectively performing one of (1) converting the input string to the candidate string in the first language, or (2) leaving the input string in the second language, (column 4, lines 28-61, ‘converting the phonetic input into the Hanzi form (language text)’; Fig. 4 and column 47-55, ‘non Chinese (e.g. English) words can be identified 403’, which suggest that the converting step is only for Chinese phonetic text, not for non Chinese words).

Regarding **claim 11** (depending on claim 9), Chen further discloses that “the first language is a primary language and the second language is secondary language used less frequently than the primary language”, (column 7, line 12-9, ‘ “mixed language/text” is entered, i.e. English or other non Chinese text is included with the Chinese text input’, ‘non Chinese text is uncoded (unmarked) with a diacritic’, which suggests that Chinese is primary language, and English or other non Chinese text is secondary language, which is inherently less frequently used than Chinese because Chen’s major invention focuses on processing Chinese language text (see title).

Regarding **claim 12** (depending on claim 9), as stated above, Chen discloses that “the input string of the first language comprises phonetic text and the input string of the second language comprises non-phonetic text”, (column 4, lines 23-61, ‘entering phonetic Chinese

Art Unit: 2654

(Pinyin and BPMF) (herein inherently including string) into computer system', 'allows a mixed Chinese and non Chinese (e.g., English) text (interpreted as non-phonetic text) to be processed').

Regarding **claim 13** (depending on claim 9), as stated above, Chen discloses that the first language is Chinese and the second language is English, (column 4, lines 23-61, 'entering phonetic Chinese (Pinyin and BPMF) (herein inherently including string) into computer system', 'allows a mixed Chinese and non Chinese (e.g., English) text (interpreted as non-phonetic text) to be processed').

9. Claims 14-25, 31-46 and 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Mukaigawa et al. (US 6246,976 B1) hereinafter referenced by Mukaigawa.

Regarding **claim 14**, as best understood in view of rejection under 35 USC 112 2<sup>nd</sup> (see above), Chen discloses a system and method for processing Chinese language text (title), comprising:

"receiving an input string containing at least first and second languages" and "determining at least one first candidate string that may be used to replace the input string based on a first probability of how likely the first candidate string was incorrectly entered as the input string in the first language", (the rejection is based on the same reason described for claim 9, because the claimed elements recite the same or similar limitations as claim 9 (see above));

Chen further discloses "determining at least one second candidate string that may be used to replace the input string" (column 4, lines 23-61, 'allows a mixed Chinese and non Chinese (second language) text to be processed', 'non Chinese words can further processed, e.g. spell

Art Unit: 2654

checked (herein inherently including at least one candidate for correcting misspelling) by known systems that process these languages’).

But, Chen does not expressly disclose the second candidate “based on a second probability of how likely the second candidate string was incorrectly [correctly] entered as the input string in the second language” and “using the first candidate string if the first probability is higher than the second probability to derive at least one output string containing the first language; and using the second candidate string if the first probability is lower than the second probability to derive at least one output string containing the second language.” However, these features are well known in the art as evidenced by Mukaigawa who disclose a plurality of morphological analysis means respectively provide with respect a plurality of language (column 3, lines 10-12), ‘occurrence probability data...for each combination of a language and character code system’ (column 8, lines 10-25), and using separate probabilities as evaluation value for judging the entered text data in each of languages/character code systems (herein the text data necessarily corresponds to at least one candidate associated with one of the probability values in the respective languages) and ‘compared with each other’ to obtain (use) the largest evaluation values (column 10, lines 12-30). In addition, Mukaigawa discloses that his invention can further process the entered text in respect language by using multiple morphological analyzers (Fig. 7) and ‘the occurrence probability data ... may be obtained with respect to all characters for each language (column 8, lines 21-25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen by specifically providing separate probabilities for each of languages and obtaining (using) the largest evaluation value, as

Art Unit: 2654

taught by Mukaigawa, for the purpose of identifying language and preparing future processing, such as searching (Mukaigawa: column 10, 23-27 and Figs 7-19).

Regarding **claims 15-18** (depending on claim 14), the rejection is based on the same reason described for claims 11-13 and 10 respectively, because the claims 15-18 recite same or similar limitation(s) as claims 11-13 and 10, respectively.

Regarding **claim 19** (depending on claim 14), Chen in view Mukaigawa further discloses obtaining “the first and second candidate strings from a database”, (Chen: column 5, line 8, statistical model”; column 6, lines 5-6, ‘Chinese dictionary or vocabulary (interpreted as database)’; Mukaigawa: Fig. 3, ‘occurrence probability data’ and tables for the respect languages).

Regarding **claim 20** (depending on claim 14), Chen in view Mukaigawa further discloses: “deriving the first probability that the first candidate string was incorrectly entered from data collected from multiple users entering a training text in the first language”, (Chen: column 1, lines 45-52; ‘operators’ and ‘ordinary people’ suggesting the invention for multiple users; column 4, lines 23-61, ‘entering phonetic Chinese (Pinyin and BPMF) (first language) into computer system’; Fig. 4 and column 12, lines 35-66, ‘an erroneous spelling is detected 408’, ‘the most probable syllable is displayed 409’, ‘best matches’; column 5, line 8, ‘statistical model’; which is necessarily include probability calculation and training data for determining a candidate).

deriving the second probability that the second candidate string was incorrectly entered from data collected from multiple users entering a training text in the second language, (column 4, lines 23-61, ‘allows a mixed Chinese and non Chinese (e.g., English) (second language) text to

Art Unit: 2654

be processed', 'non Chinese words can further processed, e.g. spell checked (including providing candidate) by known systems that process these languages'; column 5, line 8, 'statistical model'; and Mukaigawa: column 1, line 54, 'various type of language information processing suitable for respective languages')

Regarding **claim 21** (depending on claim 14), Chen in view Mukaigawa further discloses displaying the output string in line with the input string being entered by a user, (Chen: Fig. 1, block 1020).

Regarding **claim 22** (depending on claim 14), the rejection is based on the same reason described for claim 14, because the claim recites the same or similar limitation(s) as claim 14.

Regarding **claim 23**, it recites a method. The rejection is based on the same reason described for combination of claims 14 and 10, because the rejection for claims 14 and 10 covers the same or similar limitation(s) of claims 23.

Regarding **claim 24** (depending on claim 23), Chen in view Mukaigawa further disclose "displaying the input string containing the first and second language in a single edit line; and selectively displaying the output string or the input string in the single edit line", (Chen: Fig. 1, block 1020; column 12, lines 15-34 and 63-65).

Regarding **claim 25** (depending on claim 23), the rejection is based on the same reason described for claim 13, because the claim recites the same or similar limitation(s) as claim 13.

Regarding **claim 31**, as best understood in view of claim rejection under USC 112, 1<sup>st</sup> and 2<sup>nd</sup> (see above), Chen discloses a system and method for processing Chinese language text (title), comprising:

“a typing model to receive an input string”, (column 4, lines 23-61, ‘entering phonetic Chinese (Pinyin, as a string)’, ‘converting the phonetic input into the Hanzi form’, ‘key is struck (typing)’; column 6, line 21, ‘keyboard 1030 to enter Pinyin text input’, which is interpreted as a typing model or an equivalent functionality);

“a language model to provide output strings for each said typing candidates, the language model being trained in the [another] language”, (Abstract: ‘word string is analyzed using ... a statistical language model’, wherein the statistical language model is necessarily trained in the corresponding language).

But, Chen does not expressly disclose “determine a typing error probability of how likely at list one candidate string was incorrectly entered as the input string, the typing model being trained in the first language”. However, the feature of using probability for determining candidates is well known in the art as evidenced by Chen himself who discloses that ‘if an erroneous spelling (herein equivalent to typing error) is detected (determined) 408, ... the most probable (corresponding to correctly input likelihood) syllable (candidate) is displayed 409... presenting a menu of probable choices (at least one candidate string), i.e. best match 1023, selected from the Chinese syllable list 700’ (column 12, lines 35-66); using ‘multiple-choice methods based on deriving probability’ (column 2, line 13-16) and ‘statistical model for the notional words (candidates)’ (column 5, line 8), which is inherently based on probability calculations. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen by combining detecting typing error and choosing best matches (candidates) with a statistical model and/or probability for the candidates, for the

Art Unit: 2654

purpose of removing ambiguity of notional words (Chen: column 5, lines 7-8) and selecting the most probable candidate for best matches (Chen: column 12, lines 64-66).

Further, Chen does not expressly disclose the using models “being trained” in different languages. However, this feature is well known in the art as evidenced by Mukaigawa who teaches that ‘the occurrence probability for each character is previously found (being trained) by statically processing in the character appearing in various documents in the past’ and ‘the occurrence probability data (suggests the system being trained)... may be obtained with respect to all characters for each language’ (column 8, lines 16-27; column 10, lines 12-30 and Fig. 3). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Chen by providing a training process in different languages, as taught by Mukaigawa, for the purpose of obtaining occurrence probability data (Mukaigawa: column 8, lines 14-15).

Regarding **claim 32** (depending on claim 31), the rejection is based on the same reason described for claim 11, because the claim recites the same or similar limitation(s) as claim 11.

Regarding **claim 33**, it recites a language input architecture. The rejection is based on the same reason described for claim 14, because the claim recites the same or similar limitation(s) as claim 14, wherein ‘entering phonetic Chinese’ corresponds to “a first typing model” and entering ‘non Chinese’ corresponds to “a second typing model”.

Regarding **claim 34** (depending on claim 33), as stated above, the combined system uses statistical model(s) (Chen: column 5, line 8) for both first language and second language, with training data in the languages (Mukaigawa: column 8, lines 16-27), which corresponds to the

Art Unit: 2654

claimed “the first typing model is trained using a first language and the second typing model is trained using a second language.”

Regarding **claim 35** (depending on claim 33), as stated above, the combined system uses statistical model(s) (Chen: column 5, line 8) for both first language and second language (Chen: column 4, lines 23-61, ‘allows a mixed Chinese (first language) and non Chinese (e.g., English) (second language) text to be processed’), with training data in the languages (Mukaigawa: column 8, lines 16-27), which corresponds to the claimed “the input string contains phonetic text and non-phonetic text and the first typing model is trained to the phonetic text and the second typing model is trained to the non phonetic text.”

Regarding **claim 36** (depending on claim 33), as stated above, the combined system uses statistical model(s) (Chen: column 5, line 8) for both first language and second language (Chen: column 4, lines 23-61, ‘allows a mixed Chinese and non Chinese (e.g., English) text (interpreted as non-phonetic text) to be processed’, ‘entering phonetic Chinese (Pinyin and BPMF)), with training data in the languages (Mukaigawa: column 8, lines 16-27), which corresponds to the claimed “the first typing model is trained using Chinese and the second typing model is trained using English.”

Regarding **claim 37** (depending on claim 33), as stated above, the combined system uses statistical model(s) (Chen: column 5, line 8) for both first language and second language (Chen: column 4, lines 23-61, ‘allows a mixed Chinese and non Chinese (e.g., English) text (non-phonetic text) to be processed’, ‘entering phonetic Chinese (Pinyin and BPMF)), with training data in the languages (Mukaigawa: column 8, lines 16-27), which corresponds to the claimed



Art Unit: 2654

“the input string contains Pinyin and English and the first typing model is trained to the Pinyin and the second typing model is trained to the English.”

Regarding **claim 38** (depending on claim 33), Chen further discloses “a language model to provide an output string for the selected typing candidate”, (abstract, ‘word string is analyzed using ... a statistical language model’; column 18, line 49 and Fig. 6, ‘statistical model’).

Regarding **claim 39** (depending on claim 38), Chen in view of Mukaigawa further discloses a mechanism (search engine) for converting the phonetic input into the Hanzi form (output) (Chen: column 4, lines 28-61) and processing non-Chinese words (column 11, lines 53-55), which corresponds to the claimed “the search engine converts the input string to the output string.”

Regarding **claim 40** (depending on claim 38), Chen in view of Mukaigawa further discloses a user interface to receive the input string and to display the output string in a common edit line (Chen: column 5, line 56 and Fig.1, ‘graphical interface 1020’, ‘displays the Pinyin characters’ and ‘displays the Hanzi characters’).

Regarding **claim 41** (depending on claim 33), Chen in view of Mukaigawa further discloses graphical interface 1020 (Chen: column 5, line 56 and Fig.1), processing of the text (Chen: column 6, lines 1-65), spell checked for non Chinese language and that computer recognizes the letters representing Pinyin syllable and the syllable is spell checked (Chen: column 11, line 47-63); a multilingual word processor (Mukaigawa: column 5, lines 20-32), which corresponds to the claimed “a word processor embodied on a computer-readable medium comprising the language input architecture”.

Art Unit: 2654

Regarding **claim 42**, it recites a language input architecture. The rejection is based on the same reason described for claims 33, 38 and 10, because the claim recites the same or similar limitation(s) as claims 33, 38 and 10.

Regarding **claim 43** (depending on claim 42), Chen in view of Mukaigawa further discloses the search engine converts the input string to one of the conversion strings when the first probability is higher than the second probability, (Chen: column 4, lines 28-61, 'converting the phonetic input into the Hanzi form (first language)'; Fig. 4 and column 12, lines 35-66, 'the most probable syllable is displayed 409'; Mukaigawa: column 10, lines 11-33, 'product of the occurrence probabilities of the character...is obtained as final evaluation value', 'the evaluation value...is the largest (corresponding to the highest probability)'; column 11, line 11, 'a search engine').

Regarding **claim 44** (depending on claim 42), the rejection is based on the same reason described for claim 43, because the claim recites the same or similar limitation(s) as claim 43.

Regarding **claim 45** (depending on claim 42), the rejection is based on the same reason described for claim 12, because the claim recites the same or similar limitation(s) as claim 12.

Regarding **claim 46** (depending on claim 42), the rejection is based on the same reason described for claim 13, because the claim recites the same or similar limitation(s) as claim 13.

Regarding **claim 49**, it recites one or more computer-readable media. The rejection is based on the same reason described for claim 23, because the claim recites the same or similar limitation(s) as claim 23.

Art Unit: 2654

Regarding **claim 50**, it recites one or more computer-readable media. The rejection is based on the same reason described for claim 14, because the claim recites the same or similar limitation(s) as claim 14.

***Conclusion***

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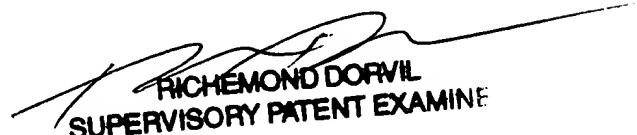
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qi Han whose telephone numbers is (571) 272-7604. The examiner can normally be reached on Monday through Thursday from 9:00 a.m. to 7:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richmond Dorvil, can be reached on (571) 272-7602.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: [ebc@uspto.gov](mailto:ebc@uspto.gov). For general information about the PAIR system, see <http://pair-direct.uspto.gov>.

QH/qh  
July 24, 2005

  
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